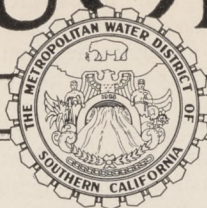


• COLORADO RIVER • AQUEDUCT NEWS

THE METROPOLITAN WATER DISTRICT



OF SOUTHERN CALIFORNIA

VOLUME XIV

DECEMBER 1947

NUMBER 12



Looking out of the south portal of the San Diego aqueduct tunnel which delivers Colorado River water into the basin of the San Vicente Reservoir we see the initial flow as it poured out of the tunnel mouth and headed down the mountainside toward the reservoir.

San Diego Celebrates Arrival of New Water

December 11 was a combination Thanksgiving Day and Christmas for the people in the San Diego territory. It was the day they celebrated the arrival of Colorado River water.

For the past two years the United States Navy has been pushing forward the construction of a 71-mile aqueduct extending from the west portal of the San Jacinto tunnel of the Metropolitan aqueduct to San Vicente reservoir near San Diego. On December 11 this work

was completed to the point where the line could be put into actual service.

Responding to invitations extended by the San Diego Citizens Aqueduct Celebration Committee, officials and representative citizens from many sections of California journeyed to the southern city to join that community and its neighbors in greeting the arrival of Colorado River water. Several hundred persons gathered at San Vicente Dam to participate in ceremonies marking the coming of the new water supply. A second ceremony was conducted at a banquet held at the Grant Hotel in the

(Continued on Page 4)

Aqueduct Water Use Will Double in 1948

The twenty-one cities and other areas now within the Metropolitan Water District will take about twice as much water from the Metropolitan aqueduct in 1948 as they did in 1947. This is the prediction of Julian Hinds, general manager and chief engineer of the District.

Mr. Hinds' estimate is based on reports from the District's constituent areas as to their probable requirements for aqueduct water in 1948.

These reports indicate an increase in demand amounting to 68,000,000 gallons a day, which will bring the total daily deliveries to 134,000,000 gallons.

The biggest single customer of Colorado River water for the year is expected to be the San Diego County Water Authority, which began taking aqueduct water in December, immediately following the completion of the water line that extends from the west portal of the San Jacinto tunnel of the Metropolitan aqueduct to the San Vicente reservoir near San Diego. Since this line was placed in operation it has been delivering water to the San Vicente reservoir at its full capacity. In fact, the line is carrying water considerably in excess of its rated capacity. It was designed to deliver 85 cubic feet per second, but actually is making deliveries at the rate of better than 90 cubic feet per second. During the time the line was being tested and before it went into regular operation, it actually carried water for a time at the rate of 104 cubic feet per second.

In making his estimate of the quantities of Colorado River water that will be delivered to the District areas in 1948, Mr. Hinds stated that the quantity may be markedly increased if 1948 proves to be another dry year. Another factor that may cause a sharp rise in water deliveries, above the present estimate, is the rapid increase and demand for water from expanding industries in various sections of the District.

• COLORADO RIVER •
AQUEDUCT NEWS
 THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Los Angeles, California
 306 West Third St.

Published monthly in the interest of Field and Office Workers on the Colorado River Aqueduct, and for the information of all other citizens of the Metropolitan Water District.

Vol. XIV December 1947 No. 12

Year 1947 Was Driest of Record

The year 1947 goes down in the records as the driest year in the history of the Los Angeles area. In the 70 years that the Weather Bureau has been keeping official rainfall figures in this territory, the previous lowest year was 1898, when 4.83 inches of rain fell through the 12-month period.

The 1898 low record, which has stood for 49 years, was broken on December 31, 1947, when official records revealed that only 4.13 inches of rain had fallen in the Los Angeles area dur-

ing the entire year. While this Southern California territory was chalking up an all-time low rainfall record, it was also experiencing a tremendous increase in population and industrial expansion, with a consequent sharp rise in the use of water. Communities that have been depending upon local underground water basins for the major portion of their supply have in most instances been pumping far more water from the underground basins than is being replaced.

Even during the above normal rainfall years between 1938 and 1946, most of the communities on the coastal plain of Southern California continued to experience a steady drop in their underground water levels. In most sections of this territory, rainfall in 1946 was slightly below the theoretical average of 15 inches. With 1947 showing a sharp break below this average of 15 inches, the overdraft of underground basins has been greatly increased.

The combination of subnormal rainfall and population growth has emphasized the vital need for Colorado River water in Southern California. A few stretches of hot days in July and August of 1947 served to point up dramatically the present need of Colorado River water.



Here is Colorado River water tumbling down the steep mountainside overlooking the storage area in San Vicente Reservoir near San Diego. It comes into the San Diego area by way of the new 71 mile water line that connects with the Metropolitan aqueduct at the west portal of the San Jacinto tunnel. Water deliveries were started on December 11.

For the RECORD

(The following items are noted from the report of General Manager and Chief Engineer Julian Hinds filed December 1947 and covering District operations for November 1947.

Construction—Grouting operations in San Jacinto tunnel were carried on during November on a 3-shift basis with an average force of 35 men. On November 30 the tunnel was cleaned up preparatory to delivery of Colorado River water to the San Diego aqueduct and Lake Mathews.

Hoover Dam—Unused District energy delivered to the Edison Company at Hayfield totaled 19,939,779 kwhr. Peak delivery was approximately 116,600 kw. Water level in Lake Mead on November 30 was at elevation 1175.24 feet, a drop for the month of 2.58 feet, representing a decrease in storage of 351,000 acre feet. Usable storage at the end of the month was 21,255,000. The discharge of the river at Hoover Dam averaged 15,200 cfs compared with 13,800 in October.

Parker Dam—The water surface reached a maximum elevation of 448.6 feet on November 16 and was at the minimum of 447.1 on the last day of the month. Average discharge of the river at Parker Dam was 14,900 cfs compared with 13,500 in October. Peak delivery to the Parker system was 63,000 kw and total energy delivered was 14,778,333 kwhr.

Pumping—Pumping was started with one pump at Intake November 25 and at Hayfield November 30 to deliver Colorado River water to the San Diego aqueduct up to its capacity, the remainder going to Lake Mathews.

Distribution System—The water level in Lake Mathews on November 30 was at elevation 1,340.17 feet and the available storage was 72,606 acre feet, a decrease for the month of 4,464 acre feet. At the softening and filtration plant Colorado River water was softened from an average hardness of 345 ppm to 124 at an average rate of 66.8 cfs. Inflow to the plant varied between a maximum of 69.4 cfs on November 1 and a minimum of 46.2 on November 30. All District areas except Burbank, San Marino, Glendale and the San Diego County Water Authority were on in line in November.

Purchasing—In November 250 purchase orders and one purchase agreement were issued in an amount approximating \$48,530. A total of 69 carloads of chemicals was shipped to the softening and filtration plant.

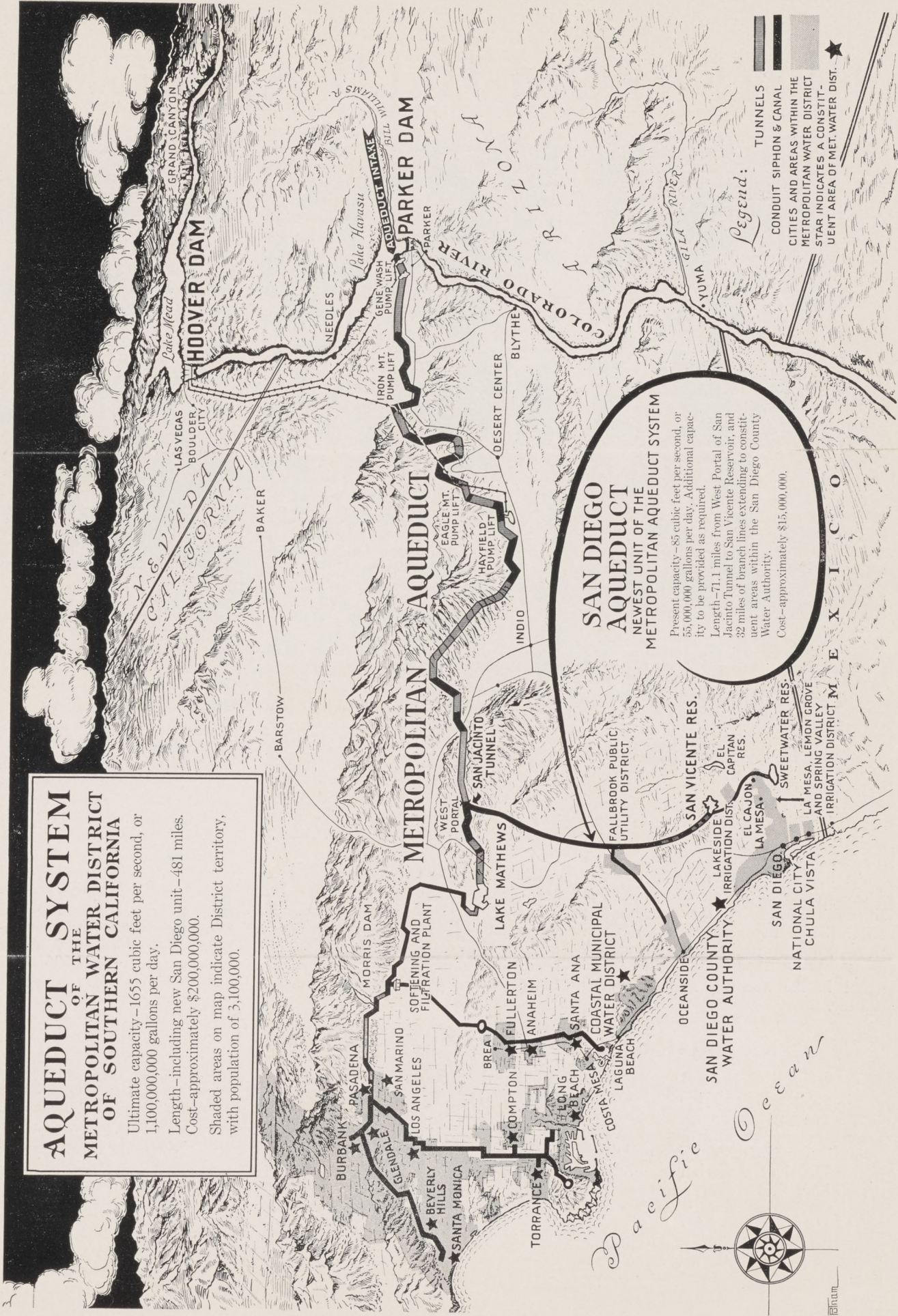
Life Lines To 3,100,000 People

AQUEDUCT SYSTEM OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

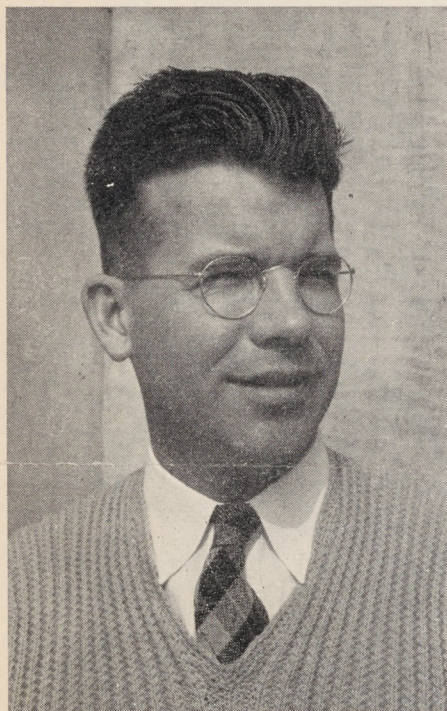
Ultimate capacity—1,655 cubic feet per second, or 1,100,000,000 gallons per day.

Length—including new San Diego unit—481 miles.
Cost—approximately \$200,000,000.

Shaded areas on map indicate District territory, with population of 3,100,000.



NEWS FROM FIELD AND OFFICE



Harold E. Pierson is the District's Agricultural Chemist at the softening and filtration plant. The many kinds of soil on which aqueduct water is used give him a wide field of study.

A December visitor in the District's Los Angeles office was William E. Ragan, who was an Inspector on the aqueduct construction job from September 1934 until May 1941. A few months after the completion of his work with the District he purchased a 17-unit motel at Bishop. Then came the war and gasoline rationing. He met this situation by moving the entire motel 131 miles to Inyokern, near the Naval Ordnance Test Station. He is now extending his business by building a new motel in the northern end of Owens Valley.

San Diego Celebrates

(Continued from Page 1)
evening of December 11.

The banquet ceremonies were conducted under the direction of Ewart Goodwin, chairman of the San Diego-Colorado River Association. Among those who delivered short addresses were District Director Franklin Thomas, President Preston Hotchkiss of the Colorado River Association, Mayor Harley Knox of San Diego, District Director Fred A. Heilbron, who is also board chairman of the San Diego County



Ralph K. Dean is Patrolman-Lineman on the District's aqueduct power transmission lines extending from Hoover Dam to the five pumping plants. He is stationed at Camino, and has been on the job since May 1943.

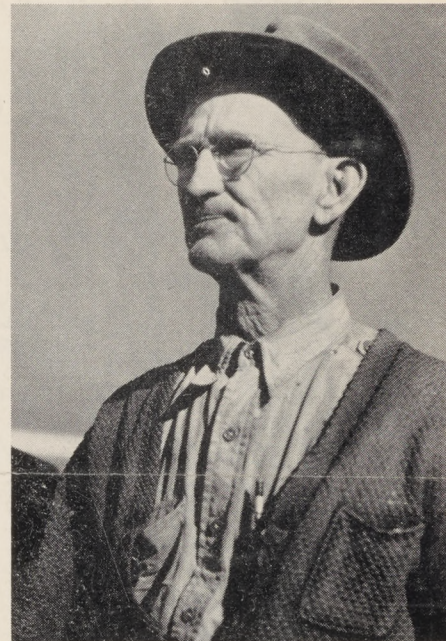
Chief Electrical Engineer James M. Gaylord received a Christmas letter from Carl C. Long, which tells of the joys and adventures of the master of a sailing craft. Carl was in the District's electrical and mechanical division during 1937 and '38. Almost all of 1947, he reports, Mrs. Long and he spent aboard their yawl, "White Wings." Their voyages took them into the Gulf of Mexico, up the Intracoastal Waterway to Spa Creek, Annapolis, Maryland and back to the Florida coast.

* * *

Alan Patten, Deputy General Counsel, has joined the ranks of the proud grandfathers in the District organization. He was qualified to admission by reason of the arrival of Leonard Alan Frescoln, son of Mr. Patten's daughter, Mrs. Joan Frescoln. The young man was born in Akron, Ohio on December 27.

Water Authority, E. A. Moritz of the U. S. Bureau of Reclamation, and Rear Admiral John J. Manning of the United States Navy.

The new line that is delivering Colorado River water to the San Diego County communities, as stated above, was built by the United States Navy at a cost of approximately \$15,000,000, and this cost is being repaid in full jointly by the San Diego County Water Authority and the Metropolitan Water District. Completion of the line on December 11, authorities have pointed out, saved the San Diego area from what



Jasper N. McAfee is Utility Man at Lake Mathews. He was first employed by the District as a Maintenance Helper in March 1939, and since that time has continuously been stationed at Lake Mathews.

Christmas greetings from G. Everett Farmer and family were appreciated by the oldtimers in the District organization. From December 1931 until July 1938, Everett was engaged in engineering work with the electrical and mechanical division. He resigned from his District job to take over the duties of a communication engineer with TVA, and is still so employed. The Christmas letter prepared by Mrs. Farmer came from their home at Signal Mountain, Tennessee, where they have a one-acre "ranch." The ranch, it would appear, provides plenty of exercise for the two sons, Allen and Jack, and the daughter, Jean Marie.

otherwise would have been a disastrous water shortage. At the time Colorado River water began to flow into the San Vicente reservoir, there was remaining in the San Diego storage basin water sufficient to meet the people's needs for only three more months, it was pointed out.

Cities and areas which comprise the San Diego County Water Authority are Chula Vista, the Fallbrook Public Utility District, Lakeside Irrigation District, La Mesa, Lemon Grove and Spring Valley Irrigation District, National City, Oceanside and San Diego.